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EXAMINER

MOE, AUNG SOE

ART UNIT PAPER NUMBER

2612

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/974,844

Applicant(s)

CHA, SOON CHUL

Examiner

Aung S. Moe

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 16-35 is/are rejected.
- 7) ☒ Claim(s) 9-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

**Please note that this application has been assigned to a different Examiner.**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-8 and 17-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Tozuka (U.S. 5,412,417).

Regarding claim 1, Tozuka '417 discloses an apparatus for adjusting an angle of an image device (14) for an information processing equipment (10) comprising:

a main body including a plurality of key buttons and a built-in unit (i.e., noted the main unit 12 and key buttons 16 and 17 as shown in Fig. 1);

a display body (13) having a display unit (22), wherein the display body (13) is rotatably coupled (i.e., see Figs. 2 and 3) to one side of the main body (12);

an image device unit (14) coupled to the display body (13) and configured to receive an image device (23) mounted thereon (i.e., see Figs. 2-4); and

rotation means (i.e., noted the elements 37, 40, 41, 43 and 26 as shown in Figs. 2 and 3) for rotating the image device unit (14) in accordance with a rotation angle between the display body (13) and the main body (12) (i.e., see col. 1, lines 35+ and col. 2, lines 15-20).

Regarding claim 2, Tozuka '417 discloses the apparatus of claim 1 (see above), wherein the rotation means comprises a connecting link (i.e., noted the element 41/29 as shown in Figs. 3 and 4) that rigidly couples the main body (12) to the image device unit (14) in a rotational relationship to compensate a viewing angle of the image device when the rotation angle is changed (i.e., see col. 1, lines 35+ and col. 2, lines 15+).

Regarding claim 3, Tozuka '417 discloses wherein the rotation means comprises a connecting link (i.e., noted the element 41/29 as shown in Figs. 3 and 4) that couples one side of the main body (12) to one side of the image device unit (i.e., see Figs. 2 and 4).

Regarding claim 4, Tozuka '417 discloses the apparatus of claim 3, wherein one end of the connecting link (i.e., noted the element 41/29 as shown in Figs. 3 and 4) is connected to one side of the main body (12) having a first prescribed offset distance (i.e., noted the distance between the elements 26 and 43 as shown in Fig. 3) from a center of rotation of the display body (i.e., noted the element 26 is center of the display unit 13), and the other end of the connecting link is connected to the image device unit (i.e., noted the connection 40 connected to the camera

unit 14 as shown in Fig. 3) having a second prescribed offset distance from a center of rotation of the image device unit (i.e., noted the distance between the element 40 and the center of the rotation of the camera unit 14 as shown in Fig. 3).

Regarding claim 5, Tozuka '417 discloses the apparatus of claim 3 (see above), wherein a body protruding portion (i.e., noted the elements 20/42 as shown in Fig. 3) protrudes upwardly from the main body (12), and a body connecting portion (i.e., noted the elements 42/20 contain a connection portion for connecting the display unit/camera unit with the main body as shown in Fig. 3) is installed on a side surface of the body protruding portion (i.e., the projection portions 42/20) so that the connecting link (41) can be coupled thereto, wherein the body connecting portion is installed on a position that is the first prescribed offset distance from the rotation center of the display body (i.e., noted the distance between the elements 26 and 43 as shown in Fig. 3).

Regarding claim 6, Tozuka '417 discloses the apparatus of claim 1 (see above), wherein rotation means comprises a support mechanism (i.e., see the element 41), wherein a first end of the support mechanism is rotatably coupled to the main body (i.e., noted the connection 43 of the element 41 as shown in Fig. 3), and a second end of the support mechanism is rotatably coupled to the image device unit (i.e., noted the connection 40 of the element 41 connected to the camera unit 14 as shown in Fig. 3).

Regarding claim 7, Tozuka '417 discloses the apparatus of claim 3 (see above), wherein the image device unit (14) comprises: a supporting plate capable of having the image device mounted thereon (i.e., noted the plate 31 as shown in Fig. 4); a rotation shaft that rotatably

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supports the supporting plate inside the display body (i.e., noted that the elements 36, 37 and 40 are functioned as a rotation shaft for the supporting plate 31 inside the display body 13); and a link connecting portion (i.e., noted the element 35 as shown in Fig. 4) protruded from the supporting plate (31) that is coupled to the connecting link (41).

Regarding claim 8, Tozuka '417 discloses the apparatus of claim 7 (see above), wherein the rotation shaft (i.e., the elements 36, 40 and 37), the supporting plate (31), and the link connecting portion (35) are formed as a single body (i.e., see Fig. 4).

Regarding claim 17, Tozuka '417 discloses the apparatus of claim 1 (see above), wherein the image device unit (14) is located at **one of** an upper central part of the display body, on a left edge on an upper end of the display body, on a right edge on the upper end of the display body and side portions of the display body (i.e., noted the location of the element 14 as shown in Fig. 2).

Regarding claim 18, Tozuka '417 discloses the apparatus of claim 17 (see above), wherein the main body (12) comprises a body protruding portion (i.e., noted the elements 20/42) upwardly protruded from a top surface into the display body (13) and a body connecting portion (i.e., noted the elements 42/20 contain a connection portion as shown in Fig. 3) is formed on a side surface of the body protrusion portion (20/42) the connection of parallel to the center of rotation of the display body (13) so that the rotation means (41) can be connected thereto (i.e., see Figs. 3 and 9).

Regarding claim 19, Tozuka '417 discloses the apparatus of claim 1 (i.e., see above), wherein the image device unit (14) is located on **one of** a left edge and a right edge on an upper end of the display body (i.e., see Fig. 2).

Regarding claim 20, Tozuka '417 discloses the apparatus of claim 19 (i.e., see above), wherein a hinge engaging portion is upwardly protruded (i.e., noted the elements 20/42 as shown in Fig. 3) on the main body (12) so that the display body (13) can be rotationally coupled to the main body (12) and a body connecting portion (i.e., noted the elements 42/20 contain a connection portion for connecting the display unit/camera unit with the main body as shown in Fig. 3) is protruded on a side surface of the hinge engaging portion offset and parallel to the center of the rotation of the display body (i.e., noted the offset distance between the elements 26 and 43 as shown in Fig. 3), wherein the rotation means (41) is connected to the body connecting portion (20/42).

Regarding claim 21, Tozuka '417 discloses the apparatus of claim 1 (see above), wherein the image device unit (14) is positioned in one of the side portions of the display body (13) (i.e., see Fig. 2), and wherein a hinge engaging portion is upwardly protruded (i.e., noted the elements 20/42 as shown in Fig. 3) on the main body (12) so that the display body (13) can be rotationally coupled to the main body (12) and a body connecting portion is protruded on a side surface of the hinge engaging portion (i.e., noted the elements 42/20 contain a connection portion for connecting the display unit/camera unit with the main body as shown in Fig. 3) offset and parallel to the center of the rotation of the display body (i.e., noted the offset distance between the elements 26 and 43 as shown in Fig. 3), wherein the rotation means (41) is connected to the body connecting portion (20/42).

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Regarding claim 22, Tozuka '417 discloses an apparatus for automatically adjusting an angle of an image device (14) for an information processing equipment (i.e., col. 1, lines 35+) comprising: a main body (i.e., 12) including a plurality of key buttons (16/17) and a built-in unit (i.e., see Fig. 1, col. 3, lines 15+);

a display body (13) including a display unit (22) and connected to one side of the main body (12) to rotate between an open position and a closed position (as shown in Fig. 1, the display unit 13 is capable of rotating between an open position and a closed position by movably coupled or hinged to the top portion of the main body 12 via a element 20, so that the display unit 22 can be protected when it's not in used);

an image device unit (14) installed on one side of the display body (13) and having an image device (23) installed therein; and

rotation means (i.e., the elements 20, 42, 37, 40 and 41) having one side (i.e., noted the location of the elements 42 and 41 as shown in Fig. 3) connected to the main body (12) spaced apart from a center of rotation of the display body (13) and the other side (i.e., noted the elements 37 and 40) connected to the image device unit (14) spaced apart from a center of rotation of the image device unit (14) for rotationally connecting the main body (12) to the image device unit (14).

Regarding claim 23, Tozuka '417 discloses the apparatus of claim 22 (i.e., see above), wherein a rotation angle of the image device unit (i.e., noted the rotation angle between the camera unit 14 as shown in Fig. 3 and 9) relative to a rotation angle of the display body is changed by controlling one of a distance from the rotation center of the display body to the



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rotation means and a distance from the rotation center of the image device unit to the rotation means (i.e., noted the distance between the elements 37, 20, 43 and 40 as shown in Figs. 3 and 9, showed the relation between the distance and the rotation angle so that an angle of the image device 14 is automatically adjusted based on the movement of the display unit 13).

Regarding claim 24, Tozuka '417 discloses the apparatus of claim 23 (see above), wherein the distance between the center of rotation of the display body and the rotation means (i.e., noted the distance between the elements 26 and 43 as shown in Fig. 3) and the distance between the center of rotation of the image device unit and the rotation means are equal (i.e., noted the distance between the element 37 and 40, which is equal to the distance between the elements 26 and 43).

Regarding claim 25, Tozuka '417 discloses the apparatus of claim 22 (see above), wherein the image device unit (14) is rotatably installed within an outer shell of the display body (i.e., se Fig. 2, noted the location of the image device unit 14).

Regarding claim 26, Tozuka '417 discloses an apparatus (i.e., Fig. 1; and col. 1, lines 35+) that adjusts an angle of an image device (14) for an information processing equipment (12) comprising:

a display body (13) including a display unit (22) and rotatably coupled to one side of a main body (12) of the information processing equipment (i.e., see Fig. 1-3; col. 3, lines 25+); and

an image device (14) configured to move together with the display body (13) while an angle of the image device unit with the respect to the display body (13) is adjusted based on a

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prescribe relationship (i.e., see Figs. 1-3 and 9; col. 1, lines 35+, col. 2, lines 15+ and col. 3, lines 15+).

Regarding claim 27, Tozuka '417 discloses the apparatus of claim 26 (see above), further comprising a rotation means (i.e., the elements 20, 42, 37, 40 and 41) for connecting one side of the image device unit (14) and one side of the main body (12) (i.e., see Figs. 1-3).

Regarding claim 28, Tozuka '417 discloses the apparatus of claim 27 (see above), wherein one end of the rotation means is connected to one side of the main body a prescribed distance from a rotation center of the display body (i.e., noted the distance between 26 and 43 as shown in Figs. 3 and 9), and the other end of the rotation means is connected to the image device unit (14) a prescribed distance from a rotation center of the image device unit (i.e., noted the distance between the elements 37 and 40 as shown in Figs. 3 and 9).

Regarding claim 29, Tozuka '417 discloses the apparatus of claim 26 (see above), wherein the image device (23) installed on the image device unit (14) is **one of** a camera (i.e., see col. 3, lines 30-35 and Fig. 4), a projector, and a monitor, and wherein the prescribed relationship maintains a constant angle relative to the main body **or** relative to a point having a fixed spatial relation to the main body (i.e., see Figs. 3 and 9; see col. 1, lines 35+ , col. 2, lines 15+ and col. 4, lines 45+).

Regarding claim 30, Tozuka '417 shows wherein the image device comprises a camera, a projector, or a monitor (i.e., see col. 3, lines 30-35).

Regarding claim 31, Tozuka '417 discloses an apparatus (i.e., Figs. 1 and 9) for maintaining a preset angle of an image device (14) for an information processing equipment (10/12), comprising:

a main body (12); a supporting unit (13); an image device mounted on the supporting unit (i.e. see Fig. 2 and 4); and rotation means (i.e., the elements 20, 42, 37, 40 and 41) for maintaining a predetermined angle between the main body (12) and the image device (i.e., as shown in Figs. 3 and 9, the camera unit 14 is parallel to the main body 12 by maintaining a predetermined angle so that the field of view of the camera unit 14 does not change when the display unit is rotated to a specific angle position from the main body 12; see Figs. 3 and 9; see col. 1, lines 35+ , col. 2, lines 15+ and col. 4, lines 45+).

Regarding claim 32, Tozuka '417 discloses wherein the predetermined angle between the main body (12) and the image device (14) is maintained as the supporting unit (13) rotates relative to the main body (i.e., as shown in Figs. 3 and 9, the camera unit 14 is parallel to the main body 12 by maintaining a predetermined angle so that the field of view of the camera unit 14 does not change when the display unit is rotated to a specific angle position from the main body 12; see Figs. 3 and 9; see col. 1, lines 35+ , col. 2, lines 15+ and col. 4, lines 45+).

Regarding claim 33, Tozuka '417 discloses wherein the rotation means comprises a linking device (i.e., noted the elements 41 and 35 as shown in Figs. 3 and 4) configured to rotatably connect the main body (12) to the image device (23).

Regarding claim 34, Tozuka '417 discloses wherein a first end of the linking device is rotatably connected to the main body (i.e., noted the connection portion 43), and a second end of the linking device is rotatably connected to the image device (i.e., noted the connection portion

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40/37 as shown in Fig. 3), and wherein the image device (14) comprises a camera (23), a projector, or a monitor.

Regarding claim 35, Tozuka '417 discloses an apparatus (i.e., Figs. 1-3 and 9, see col. 1, lines 35+) for maintaining a preset angle of an image device (14) for an information processing equipment (10), comprising:

a main body (12); a supporting unit (13); an image device (14) mounted on the supporting unit (i.e., see Figs. 2 and 4); and a rotation device configured to maintain a predetermined angle between the main body and the image device (i.e., as shown in Figs. 3 and 9, the camera unit 14 is parallel to the main body 12 by maintaining a predetermined angle so that the field of view of the camera unit 14 does not change when the display unit is rotated to a specific angle position from the main body 12; see Figs. 3 and 9; see col. 1, lines 35+ , col. 2, lines 15+ and col. 4, lines 45+).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tozuka '417 in view of Higuchi et al. (U.S. 6,829,011).

Regarding claim 16, it is noted that Tozuka '417 discloses an apparatus for adjusting an angle of the image device (14) for the information processing equipment (10) having all the features (i.e., see as discussed above for claim 1) except for a sliding door, which is included in the display body so as to open/close the image device unit in the display body.

Although a sliding door is noted located on the display body (13) in Tozuka '417, it would have been obvious to one of ordinary skill to include a sliding door (i.e., the cover element for the camera 14) in the display body (13) for the purpose of protecting the lens of the camera unit (14) from a contamination, such as dust, or a damage when the system is not in used, since it is notoriously well known in the art that the camera lens is normally protected with the use of door unit thereby a better quality image can be obtained, and such a modification is within the level of ordinary skilled in the art. Furthermore, the teaching of Higuchi '011 supports the Examiner's position. In particular, Higuchi '011 clearly teaches that it is conventionally known to those skill in the art at the time of the invention was made to use a sliding door (see Fig. 1, the element 4; and col. 8, lines 35-45) to protect shooting lens of the camera aperture 2 when non-shooting

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Tozuka '417 by providing a sliding door (i.e., noted the teaching of Higuchi '011) in the display unit (13) in order to protect the camera lens from a contamination, such as dust, or a damage when non-shooting, thereby a better quality image can be realized when shooting is performed with the sliding door opened.

*Allowable Subject Matter*

6. Claims 9-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- a. Gotoh '269 shows an apparatus for adjusting an angle of an image device of the information processing equipment (i.e. see Fig. 10).
- b. Kim '653, Smith '163, Griencewic '919, Cipolla '151, Ishikawa '902, Silverster '958 and Saito '569 show the use of an image device (i.e. the camera) in information processing device (i.e., Computer).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung S. Moe whose telephone number is 571-272-7314. The examiner can normally be reached on Mon-Fri (9-5).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 571-272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Aung S. Moe  
Primary Examiner  
Art Unit 2612

A. Moe  
June 12, 2005